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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Olaf Turner

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09/20/2006

SCHIFF HARDIN, LLP
PATENT DEPARTMENT
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EXAMINER

CHEN, TSE W

ART UNIT

PAPER NUMBER

2116

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/007,899

Applicant(s)

TURNER ET AL.

Examiner

Tse Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-14 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In view of the appeal brief filed on June 27, 2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31. A new notice of appeal fee and appeal brief fee will not be required for applicant to appeal from the new Office action. Any appeal brief filed on or after September 13, 2004 must comply with 37 CFR 41.37.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 5-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio, PCT Publication WO9948055, in view of Yoshimura, US Patent 5650974.

3. Naclerio discloses an electronic device [psd] comprising [fig. 1]:

- A security region [within secure housing] containing a plurality of security components [e.g., ram 14], said security region being surrounded by a mechanical

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security barrier [secure housing] to normally preclude physical access to said security components [pg. 1, ll.24-26].

- A power source [21] adapted for connection to a means voltage [external power] for normally supplying power to said security components [pg.5, ll.3-4].
 - A first battery [15] disposed in said security region with physical access to said first battery also being normally precluded in said security barrier.
4. Naclerio did not discuss a second battery.
5. Yoshimura discloses an electronic device [10] comprising [fig. 1]:
- A [security] region [fig.5; col.2, ll.13-31; col.8, ll.45-63; 3, 10a, and bat 2 resides in not-normally-accessible “security” region to avoid replacement functions, in contrast to bat 1 that resides outside of “security” region that is provided with replacement accommodation such as battery holder] containing a plurality of security components [col.1, ll.16-25; memory 3 and associated components store personal data securely to prevent loss due to power disruptions].
 - A power source [101] adapted for connection to a means voltage [external power supply vcc] for normally supplying power to said security components [col.9, ll.18-22].
 - A first battery [bat 2] disposed in said security region [col.2, ll.13-31; col.8, ll.45-63; bat 2 does not require a battery holder outside of security region as bat 2 is rechargeable within security region].
 - A second battery [bat 1] disposed outside of said security region [col.2, ll.13-31; col.8, ll.45-63; bat 1 outside of security region in order to be accessed and

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replaced via battery holder] for supplying power to said security components upon an outage of said mains voltage [col.10, ll.45-51].

- A battery switchover device [10a] having a first input connected to said first battery and a second input connected to said second battery for switching power supply to said security components from said second battery to said first battery only if power from said second battery is absent [col.9, l.50 – col.10, l.24; col.10, l.51 – col.11, l.11].
- A monitoring unit [11] disposed in said security region and connected to said battery switchover device for evaluating voltage information associated with at least one of a voltage of said first battery and a voltage of said second battery [col.9, l.50 – col.10, l.16].

6. It would have been obvious to one of ordinary skill in the art, having the teachings of Naclerio and Yoshimura before him at the time the invention was made, to modify the electronic device of Naclerio to include the second battery associated with rechargeable teachings of Yoshimura [rechargeable bat 2 of Yoshimura analogous to 15 of Naclerio that operates to prevent data loss], in order to further extend the life of the battery residing in the not-normally-accessible security region and thus, reduce the overall hassle associated with replacing a hard-to-access component. The configuration with the second battery as taught by Yoshimura is necessary to alleviate negative effects such as aging and environment associated with the rechargeable battery in order to further extend the life of the rechargeable battery residing in the not-normally-accessible security region [i.e., life of battery is extended partly through recharges and partly through the reduction in the number of recharges]. One of ordinary skill in the art would have been motivated

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to make such a combination as it provides a way to further extend the life of a battery that is not normally accessed while preventing data loss [Yoshimura: col.2, ll.13-31; col.5, ll.43-55].

7. As to claim 5, Yoshimura discloses the battery switchover device that has an output [8] connected to components [memory 3] for supplying power thereto via said battery switchover device from one of said first power source and said second power source, and wherein said device further comprises, in said security region, decoupling elements [e.g., sw 1, 2] at said output.

8. As to claim 6, Yoshimura discloses the decoupling elements that are selected from the group consisting of diodes [e.g., sw1] and controlled electronic switches [e.g., sw2].

9. As to claim 7, Naclerio discloses the electronic device comprising a security module [secure housing] containing a monitoring unit [diodes] and said security components and protected by said mechanical barrier [fig.1].

10. As to claim 8, Yoshimura discloses the security module that comprises the battery switchover device [col.1, ll.22-25; 10 sans battery holder integrated as a card].

11. As to claim 9, Yoshimura discloses a battery compartment [27a] for said second battery, closeable with a battery compartment cover [27] [fig.5].

12. As to claim 10, Yoshimura discloses having a housing [of card] containing said security region and said battery compartment, and having a sidewall in which said battery compartment cover is disposed [fig.5; col.1, ll.22-25; 27 inserted into sidewall of card].

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13. As to claim 11, Yoshimura discloses having a housing [of card] containing said security region and said battery compartment, and having a base in which said battery compartment cover is disposed [fig.5; col.1, ll.22-25; 27 inserted through base of card].

14. As to claim 14, Naclerio discloses, wherein said security module is a postal security device [abstract].

15. Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio and Yoshimura as applied to claim 1 above, and further in view of Wiley et al., U.S. Patent 6073085, hereinafter Wiley.

16. In re claims 2-3, Naclerio and Yoshimura discloses each and every limitation of the claim as disclosed above in reference to claim 1. Naclerio and Yoshimura did not disclose expressly an analog-to-digital converter for converting voltage information into digital information and the details of the monitoring unit.

17. As to claim 2, Wiley discloses an electronic device [electronic unit 50] comprising:

- A monitoring unit [CPU 111, battery circuit 131, A/D converter 115, etc.] that comprises an analog-to-digital converter [A/D converter 115] for converting said voltage information into digital information [col.5, ll.18-29].

18. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Naclerio and Yoshimura before him at the time the invention was made, to use the analog-to-digital converter taught by Wiley with the electronic device disclosed by Naclerio and Yoshimura as the analog-to-digital converter taught by Wiley is a well known component suitable for use with the electronic device of Naclerio and Yoshimura. One of ordinary skill in the art would have been motivated to make such a combination as

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it provides a way to monitor the voltage of batteries [Wiley: col.5, ll.18-29] in order to know the status of batteries.

19. As to claim 3, Wiley discloses an electronic device [electronic unit 50] comprising:

- The monitoring unit that that comprises a processor [CPU 111] supplied with digital information for evaluating the digital information to generate a signal indicating a supply status [table 1; service errors] representative of voltage information, and an externally visible indicator [display 117 with display processor 116] connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply status [col.5, ll.40-54; col.6, ll.29-46; col.8, l.66 – col.9, l.12; col.9, ll.34-57; col.15, ll.53-65].

20. It would have been obvious to one of ordinary skill in the art, having the teachings of Wiley, Naclerio and Yoshimura before him at the time the invention was made, to modify the electronic device taught by Naclerio and Yoshimura to include the monitoring unit taught by Wiley, in order to obtain the electronic device comprising the monitoring unit that that comprises a processor supplied with digital information for evaluating the digital information to generate a signal indicating a supply status representative of voltage information, and an externally visible indicator connected to said processor for receiving said status signal therefrom and for displaying a visual indication of said supply status. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to ensure an electronic device is in good working order [Wiley: col.1, l.14 – col.2, l.40].

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21. Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Naclerio and Yoshimura as applied to claim 1 above, and further in view of Fang et al., U.S. Patent 5128552, hereinafter Fang.

22. In re claim 12, Naclerio and Yoshimura disclose each and every limitation of the claim as disclosed above in reference to claim 1. Naclerio and Yoshimura did not discuss details of processing operations.

23. Fang discloses an electronic device [fig.1] comprising:

- A plurality of operating components [component 25; col.5, ll.25-38], and wherein a monitoring unit [25, 16] includes a processor [25d] for evaluating voltage information [col.7, ll.13-31], and wherein said processor is connected to at least one of said operating components and alters operation of said at least one of said operating components if said voltage information indicates an unperformed need to replace a second battery [backup battery 22] [col.6, ll.7-58; col.7, ll.13-31; col.7, l.49 – col.8, l.8].

24. It would have been obvious to one of ordinary skill in the art, having the teachings of Fang, Naclerio and Yoshimura before him at the time the invention was made, to modify the electronic device taught by Naclerio and Yoshimura to include the monitoring unit taught by Fang, in order to obtain the monitoring unit that includes a processor for evaluating voltage information, and wherein said processor is connected to at least one of said operating components and alters operation of said at least one of said operating components if said voltage information indicates an unperformed need to replace a second battery. One of ordinary skill in the art would have been motivated to make such a

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combination as it provides a way to conserve battery power [Fang: col.3, ll.1-13; col.4, ll.11-13].

25. As to claim 13, Fang discloses the processor that prevents operation of said at least one operating component after a predetermined delay [T3] if said voltage information indicates an unperformed need to replace said second battery [col.6, ll30-58].

Allowable Subject Matter

26. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

27. The following is a statement of reasons for the indication of allowable subject matter: the claims are allowable because none of the references cited, either alone or in combination, discloses or renders obvious an electronic device of claim 4, "... comprises a first series circuit of Schottky diodes connected between said first input of said battery switchover device and said output, and a second series circuit of Schottky diodes connected between said second input of said battery switchover device and said output, said first series circuit having a center tap connected to said first input of said analog-to-digital converter and said second series circuit having a center tap connected to said second input of said analog-to-digital converter".

Response to Arguments

28. Applicant's arguments dated June 27, 2006 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672.

The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tse Chen
August 5, 2006


JAMES K. TRUILLO
PRIMARY EXAMINER
TC 2100